

Abstract

A method for controlling electrical conductivity of a work piece by emitting pulse light from a light source onto the work piece, the method comprising a step of controlling the light emission index  $S$  of the pulse light in a  $400 \leq S \leq 900$  range, wherein light energy, pulse width and light emission index are represented by  $E$  J/cm<sup>2</sup>,  $\tau$  sec, and  $S$ , and the  $S$  is defined as  $E/\tau^{1/2}$ .